

information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c). In the present case, the Examiner introduced a new ground of rejection, while neither conditions (1) nor (2) were met. The Examiner has introduced a new ground of rejection, at least with respect to claims 1 and 7-9. Namely claims 1 and 7-9 were rejected in the outstanding Office Action under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,776,417 to Frost et al. With respect to condition (2), the new ground of rejection in the outstanding Office Action was not based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c), at least because no such information disclosure statement has been filed. With respect to condition (1), the new ground of rejection was not necessitated by an amendment to claims 1 and 7-9, at least because these claims were not amended in the Amendment filed on August 7, 2002, to which the outstanding Office Action is in response. Thus, the finality of the outstanding Office Action is premature, and applicants respectfully request that the finality be withdrawn.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 1-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,776,417 to Frost et al. (hereafter "Frost"). Claims 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Frost in view of U.S. Patent No. 6,029,441 to Mizuno et al. (hereafter "Mizuno"). Applicants respectfully traverse these rejections for the following reasons.

Claims 1 and 11

A purpose of the present invention is the suppression of CO exhaust by rapidly raising the temperature of a CO oxidation catalyst so as to reduce the light-off time thereof. In order to rapidly heat the CO oxidation catalyst, adsorption heat or condensation heat of H₂O caught in a H₂O trap is employed (see present specification, page 2, lines 1-18).

According to an aspect of the invention as recited in claims 1 and 11, the H₂O trap is disposed upstream and close to the CO oxidation catalyst. Frost fails to disclose the H₂O trap disposed upstream and close to the CO oxidation catalyst. Frost discloses an H₂O trap disposed upstream of a HC trap so as to pre-dry the HC trap (see col. 2, lines 46-55). The HC trap is arranged upstream of the CO oxidation catalyst in order to trap HC gas and prevent the HC gas from reaching the CO oxidation catalyst (col. 2, lines 21-28). Thus, in this embodiment of Frost, the HC trap is between the H₂O trap and the CO oxidation catalyst, and the H₂O trap cannot be close to the CO oxidation catalyst.

Frost also discloses that the trap and catalyst may be formed as a mixed or layered trap and catalyst (col. 2, lines 52-63). Even in this case, however, Frost does not disclose that the H₂O trap should be arranged to be both upstream of the CO oxidation catalyst and close to the CO oxidation catalyst.

Moreover, Frost is silent about whether or not the H₂O trap should be arranged to be upstream and close to the CO oxidation catalyst. Thus, Frost does not realize the attendant advantages of the structure of claims 1 and 11, where the H₂O trap is arranged upstream and close to the CO oxidation catalyst. Specifically, Frost does not realize the advantages where CO oxidation catalyst is rapidly heated through adsorption heat or condensation heat of H₂O caught in a H₂O trap.

Claim 2

As recited in claim 2, a HC trap is disposed upstream of a H₂O trap. As discussed above, Frost discloses the HC trap to be disposed downstream of the H₂O trap, not upstream as recited in claim 2. Moreover, the purpose of the relative arrangement of the H₂O trap of Frost to be upstream of the HC trap is to remove H₂O prior to the HC trap. Thus, it would not have been obvious to modify the Frost reference to dispose the HC trap upstream of the H₂O trap.

Claim 12

Claim 12 recites an underfloor catalyst having a CO oxidation catalyst and a H₂O trap coated on a support, a secondary air supply unit disposed upstream of the underfloor catalyst; and a HC trap disposed upstream of the secondary air supply. Thus, in claim 12 the HC trap, which is disposed upstream of the secondary air supply, must also be disposed upstream of the H₂O trap. As discussed above, Frost discloses the HC trap to be disposed downstream of the H₂O trap, not upstream as in claim 12. Furthermore, as discussed above with respect to claim 2, it would not have been obvious to modify the Frost reference to dispose the HC trap upstream of the H₂O trap, because the purpose of the relative arrangement of the H₂O trap of Frost to be upstream of the HC trap is to remove H₂O prior to the HC trap.

Mizuno was cited for allegedly disclosing an HC trap upstream of a secondary air supply unit, and does not cure the deficiencies of Frost discussed above.

For the reasons given above, applicants submit that all of the independent claims, 1, 2, 11 and 12, and claims depending therefrom, are patentable over the art cited in the rejection of the claims. Accordingly applicants respectfully request that the rejection of the claims under 35 U.S.C. §§ 102 and 103 be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

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